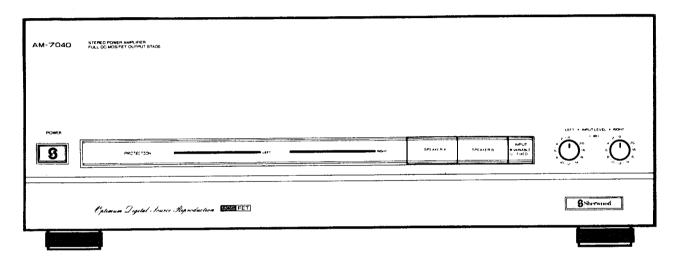
SERVICE MANUAL

AM-7040

STEREO POWER AMPLIFIER



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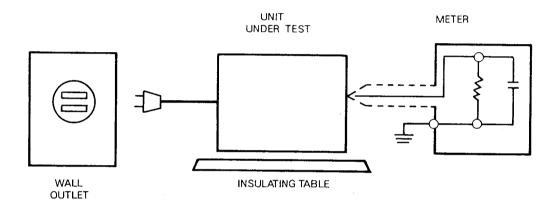
NOTICE

- This manual is for authorized and qualified service personnel, so the basic service procedure and commonsense of safety are not described in this manual.
- Sherwood always makes every endeavor to improve the products, therefore the specifications and data provided are subject to change without notice.



To Service Personnel

- 1. Critical Components Information.
 - The \triangle marked components on schematic diagram and parts list be replaced with the parts having specifications equal to these originally installed.
- Leakage Current Measurement(For 120V Version only).
 When the service has been completed, make sure that all exposed conductive surfaces are properly insulated from the power supply circuits.
 - Leakage current meter should have an input impedance of 1500 ohms resistive shunted by 0.15 μF capacitor.
 - · Leakage current shall not be exceed 0.5mA.



- Turn the unit OFF, and disconnect the power supply cord during disassembly and replacement of parts.
- 4. When the service has been completed, be sure to check all protective device and spacings before returning the unit to customer.



This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" with in the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock hazard to persons.



This symbol is intended to alert the user to the presence of important operating and maintenance(servicing) instructions in the literature accompanying the appliance.

7. Caution: To prevent electric shock do not use this(polarized) plug with an extension cord, receptacle or other outlet unless the blades can be fully inserted to prevent blade exposure.

Specifications

IHF/EIA Version

Power Output per Channel, Minimum RMS 20-20 kHz (FTC Power) no more than 0.04% THD, into 8 ohms no more than 0.08% THD, into 4 ohms Dynamic Power Output per Channel (FTC Power + Dynamic Headroom) into 8 ohms into 4 ohms into 2 ohms Intermodulation Distortion into 8 ohms at 200W Damping Factor into 8 ohms at 50 Hz Frequency Response, —3 dB Signal to Noise Ratio, "A" wtd/unwtd at 1kohm 200W Terminated at 1 kHz, 1 kohm Terminated at 1 kHz, 1 kohm Terminated at 70 Hz, 1 kohm Terminated	.320W .250W .450W .650W .0.02% .150 .5 Hz-150 kHz .120/90 dB .95/80 dB .1000mV .80 dB
DIN/IEC Version	
Power output per Channel	
IEC Standard, at 63-12,500 Hz into 8 ohms	.220W
at 63-12,500 Hz into 4 ohms	.340W
DIN Standard, at 1 kHz into 8 ohms	
at 1 kHz into 4 ohms	. 350W
Dynamic Power output per Channel into 8 ohms	070147
into 4 ohms	
into 2 ohms	. VVUCO
at 1 kHz into 8 ohms	0.0070/
at 10 kHz into 8 ohms.	
Intermodulation Distortion. –6 dB Rated Output Power	.0.003 /6
into 8 ohms	0.007%
into 4 ohms	
Damping Factor at 200W 50 Hz, into 8 ohms	
Frequency Response, -3 dB.	5 Hz-150 kHz
Signal to Noise Ratio, "A" wtd/unwtd (at 22 kohm Terminated, Reference 0 dB	.5 112-150 K112
at 200W into 8 ohms	. 110/90 dB
at 1W into 8 ohms	.90/80 dB
Input Sensitivity at 200W, 1 kHz into 8 ohms	
Channel Separation at 200W into 8 ohms	
22 kohms Terminated at 1 kHz	.80 dB
22 kohms Terminated at 10 kHz	.70 dB
	· · · v -

General Specifications

Power Consumption	
IHF/EIA Version	450W Max (Vol Min 60W)
DIN/IEC Version	1300W Max
Slew Rate	40V/us
Rising Time	2.0usec
Dimensions	(W)440×(H)150×(D)400mm
	(W)17.3×(H)5.9×(D)15.7inch
Weight	22.5 Kg (56.1 lbs)

Power Requirements			
	N Model		
	MODEL) Hz
	EAN MODEL & ITALIAN MODEL		
	TRALIAN MODEL		
	IDINABIAN MODEL		

Note: Specifications and Design subject to change without notice for improvements.

Electrical Parts List

FRONT BOARD 4002118700

	Ref. No	Parts No.	Description	Position Remark
	Capacitors	s		
	C109L/R	3479210061	Electrolytic 10μF/35V	A/J
	C110L/R C111L/R	3479210061 3579101130	Electrolytic 10µF/35V	A/J
	C111L/R	3479247041	Ceramic 100pF/50V Electrolytic 47µF/25V	A/J A/J
	C113L/R	3579473530	Ceramic 0.047μF/50V	B/I
	C114L/R	3579473530	Ceramic $0.047\mu\text{F}/50\text{V}$	B/I
	C117L/R C118L/R	3579102530 3579102530	Ceramic 0.001μF/50V Ceramic 0.001μF/50V	A/J
	C121L/R	3509100050	Ceramic 10pF/500V	A/J B/I
	C122L/R	3509100050	Ceramic 10pF/500V	B/I
	C125L/R	3579473530	Ceramic 0.047μF/50V	C/H
	C126L/R C129L/R	3579473530 3409222141	Ceramic 0.047μF/50V Electrolytic 220μF/25V	C/H B/I
	C130L/R	3409222141	Electrolytic 220µF/25V	B/I
	C131L/R	3509103450	Ceramic 0.01 _µ F/500V	D/G
	C132L/R	3509103450	Ceramic 0.01μF/500V	D/G
	C133L/R C139L/R	3509150050 3579473530	Ceramic 15pF/500V Ceramic 0.047µF/50V	C/I C/I
	C404L/R	3479247871	Electrolytic 0.047µF/50V	C/E
	C405L/R	3479222041	Electrolytic 22μF/25V	B/D
	C406L/R	3479222041	Electrolytic 22µF/25V	C/E
	C509 C510	3479247041 3479247041	Electrolytic 47μF/25V Electrolytic 47μF/25V	F E
	0010	37/327/041	Liectionytic 4/µ1/25V	
	 Diodes 			
	D101L/R	2058306101	1N4148	A/J
	D102L/R D103L/R	2058306101 2058599100	1N4148 Zener, DZ3.3BM	A/J B/I
	D104L/R	2058599100	Zener, DZ3.3BM	B/I
	D105L/R	2058599100	Zener, DZ3.3BM	C/H
	D106L/R D107L/R	2058599100 2058306101	Zener, DZ3.3BM 1N4148	C/H
	D403L/R	2058306101	1N4148	C/H C/E
				J. 2
	• ICs IC402L/R	2160000114	AAC AEEG	0.0
\triangle	IC501	2168000114 2168601106	MC 4558 Regulator 7818	B/D
4	IC502	2168600106	Reaulator 7918	E:
İ	• LEDs			
	L301	2308220507	SLV 56DC3, Amber	F
	L302	2308220507	SLV 56DC3, Amber	G
İ	L303	2308220507	SLV 56DC3, Amber	G
	L304 L305	2308220507 2308220507	SLV 56DC3, Amber SLV 56DC3, Amber	H A
	L306	2308220507	SLV 56DC3, Amber	B
1	L308	2308220507	SLV 56DC3, Amber	н
		2318271003	Display ALD450RA	C
	DISPLAY 2	2318271003	Display ALD450RA	E
	• Resistors			
	R109L/R	3069473270	Metal Film 47Kohm 1/4W J	A/J
l	R110L/R	3069102270	Metal Film 1Kohm 1/4W J	A/J
	R111L/R R112L/R	3069473270 3069473270	Metal Film 47Kohm 1/4W J Metal Film 47Kohm 1/4W J	A/J A/J
	R113L/R	3069102270	Metal Film 1Kohm 1/4W J	A/J
	R114L/R	3069102270	Metal Film 1Kohm 1/4W J	A/J
	R115 L/R R116 L/R	3069102270 3069102270	Metal Film 1Kohm 1/4W J Metal Film 1Kohm 1/4W J	A/J
	R117 L/R	3069102270	Metal Film 1Kohm 1/4W J Metal Film 1Kohm 1/4W J	A/J B/I
	R118 L/R	3069102270	Metal Film 1Kohm 1/4W J	B/I
	R119 L/R	3069122270	Metal Film 1.2Kohm 1/4W J	B/I
	R120 L/R R121 L/R	3069122270 3069101270	Metal Film 1.2Kohm 1/4W J Metal Film 100 ohm 1/4W J	B/I
	R121 L/R	3069101270	Metal Film 100 ohm 1/4W J	B/J B/J
	R123 L/R	3069101270	Metal Film 100 ohm 1/4W J	B/I
- 1	R124 L/R	3069101270	Metal Film 100 ohm 1/4W J	B/I
	R125L/R R126L/R	3069222270 3069222270	Metal Film 2.2Kohm 1/4W J Metal Film 2.2Kohm 1/4W J	A/J
	R127L/R	3069222270	Metal Film 2.2Kohm 1/4W J Metal Film 2.2Kohm 1/4W J	A/J B/I
L				

Q102L/R 2008613115 PNP µPA 75HA B/I Q103L/R 2208606108 NPN KTC 2240BL B/J Q104L/R 2008206104 PNP KTC 970BL B/J Q105L/R 2208606108 NPN KTC 2240BL B/I Q106L/R 2008206104 PNP KTC 970BL B/I Q107L/R 2208606108 NPN KTC 2240BL B/J Q108L/R 2008206104 PNP KTC 970BL B/J Q109L/R 2018206109 FET 25K30A B/I Q110L/R 2018206109 FET 25K30A B/I Q111L/R 2008206104 PNP KTA 970BL B/I Q112L/R 2208606108 NPN KTC 2240BL B/I Q112L/R 2208606108 NPN KTC 2240BL B/I Q113L/R 2028116106 PNP 2SA 958 C/H	Ref. No	Parts No.	Description	Position	Remark
R130L/R 3069102270 Metal Film 1Kohm 1/4W J B/I R132L/R 3069123270 Metal Film 12Kohm 1/4W J B/I R132L/R 3069472270 Metal Film 12Kohm 1/4W J B/I R134L/R 3069472270 Metal Film 4.7Kohm 1/4W J B/I R134L/R 3069472270 Metal Film 4.7Kohm 1/4W J B/I R136L/R 3069102270 Metal Film 100 ohm 1/4W J B/I R132L/R 3069101270 Metal Film 100 ohm 1/4W J B/I R132L/R 3069101270 Metal Film 100 ohm 1/4W J B/I R138L/R 3069101270 Metal Film 4.7 ohm 1/4W J B/I R134L/R 3069561270 Metal Film 4.7 ohm 1/4W J B/I R141L/R 3069561270 Metal Film 4.7 ohm 1/4W J B/I R141L/R 306951270 Metal Film 4.7 ohm 1/4W J B/I R141L/R 306951270 Metal Film 100 ohm 1/4W J B/I R141L/R 306951270 Metal Film 100 ohm 1/4W J A/J R141L/R 306951270 Metal Film 100 ohm 1/4W J A/J R141L/R 306951270 Metal Film 100 ohm 1/4W J G/I R221L/R 3069101270 Metal Film 100 ohm 1/4W J G/I R231R 3069561270 Metal Film 3069566180 Metal Film 100 ohm 1/4W J B/D Metal Film 1	R128L/R	3069222270	Metal Film 2.2Kohm 1/4W J	B/I	
R131L/R 3069123270 Metal Film 12Kohm 1/4W J B/I R132L/R 3069123270 Metal Film 12Kohm 1/4W J B/I R134L/R 3069472270 Metal Film 4.7Kohm 1/4W J B/I R134L/R 3069472270 Metal Film 4.7Kohm 1/4W J B/I R136L/R 3069102270 Metal Film 100 ohm 1/4W J B/I R138L/R 3069101270 Metal Film 100 ohm 1/4W J B/I R138L/R 3069101270 Metal Film 100 ohm 1/4W J B/I R138L/R 3069479270 Metal Film 100 ohm 1/4W J B/I R138L/R 3069479270 Metal Film 100 ohm 1/4W J B/I R134L/R 3069479270 Metal Film 4.7 ohm 1/4W J C/H R141L/R 306951270 Metal Film 560 ohm 1/4W J B/I R141L/R 306951270 Metal Film 100 ohm 1/4W J A/J R143L/R 3069273270 Metal Film 100 ohm 1/4W J A/J R143L/R 3069101270 Metal Film 100 ohm 1/4W J G G G G G G G G G	R129L/R	3069102270	Metal Film 1Kohm 1/4W J	B/I	
R132L/R 3069123270 Metal Film 12Kohm 1/4W J B/I	R130L/R	3069102270	Metal Film 1Kohm 1/4W J	B/I	
R133L/R 3069472270 Metal Film 4.7Kohm 1/4W J B/I	R131L/R	3069123270	Metal Film 12Kohm 1/4W J	B/I	
R134L/R 3069472270 Metal Film 4.7Kohm 1/4W J B/I	R132L/R	3069123270	Metal Film 12Kohm 1/4W J	B/I	
R135 3069102270 Metal Film 1Kohm 1/4W J A/J	R133L/R	3069472270	Metal Film 4.7Kohm 1/4W J	B/I	
R136L/R 3069101270 Metal Film 100 ohm 1/4W J D/H R138L/R 3069101270 Metal Film 100 ohm 1/4W J B/I R138L/R 3069101270 Metal Film 100 ohm 1/4W J B/I R139L/R 3069479270 Metal Film 4.7 ohm 1/4W J C/H R140L/R 3069479270 Metal Film 4.7 ohm 1/4W J B/I R140L/R 3069510270 Metal Film 4.7 ohm 1/4W J B/I R141L/R 30695102270 Metal Film 1560 ohm 1/4W J B/I R141L/R 30695102270 Metal Film 1560 ohm 1/4W J B/I R141L/R 306951270 Metal Film 1760 ohm 1/4W J A/J R147 3069681270 Metal Film 1760 ohm 1/4W J C/I R221L/R 3069101270 Metal Film 100 ohm 1/4W J G R222L/R 3069101270 Metal Film 100 ohm 1/4W J G R317 3069561270 Metal Film 100 ohm 1/4W J G Metal Film 560 ohm 1/4W J B/D Metal Film 560 ohm	R134L/R	3069472270	Metal Film 4.7Kohm 1/4W J	B/I	
R137L/R 3069101270 Metal Film 100 ohm 1/4W J B/I R138L/R 3069101270 Metal Film 100 ohm 1/4W J B/I R139L/R 3069479270 Metal Film 4.7 ohm 1/4W J C/H R141L/R 306951270 Metal Film 560 ohm 1/4W J B/I R141L/R 3069102270 Metal Film 560 ohm 1/4W J B/I R141L/R 3069273270 Metal Film 560 ohm 1/4W J A/J R141L/R 3069273270 Metal Film 560 ohm 1/4W J A/J R147 3069681270 Metal Film 560 ohm 1/4W J A/J R221L/R 3069101270 Metal Film 100 ohm 1/4W J C/H R317 3069561270 Metal Film 100 ohm 1/4W J G R222L/R 3069101270 Metal Film 560 ohm 1/4W J G R318 3069561270 Metal Film 560 ohm 1/4W J G R318 3069561270 Metal Film 560 ohm 1/4W J G R318 3069561270 Metal Film 560 ohm 1/4W J G R418 Film 33Kohm 1/4W J C/E R407L/R 3069333270 Metal Film 33Kohm 1/4W J C/E R409L/R 3069104270 Metal Film 33Kohm 1/4W J C/E R409L/R 3069104270 Metal Film 100Kohm 1/4W J C/E R411L/R 3069104270 Metal Film 15Kohm 1/4W J B/D R411L/R 3069104270 Metal Film 15Kohm 1/4W J B/D R411L/R 3069104270 Metal Film 15Kohm 1/4W J B/D R411L/R 3069104270 Metal Film 100Kohm 1/4W J B/D R411L/R 3069104270 Metal Film 100Kohm 1/4W J B/D R415L/R 3069101270 Metal Film 100Kohm 1/4W J B/D R415L/R 3069101270 Metal Film 100Kohm 1/4W J B/D R415L/R 3069101270 Metal Film 100 ohm 1/4W J B/D R415L/R 3069101270 Metal Film 100Kohm 1/	R135	3069102270	Metal Film 1Kohm 1/4W J	A/J	
R138L/R 3069101270 Metal Film 100 ohm 1/4W J C/H 174W J	R136L/R	3069224270	Metal Film 220Kohm 1/4W J	D/H	
R139L/R 3069479270 Metal Film 4.7 ohm 1/4W J C/H R140L/R 3069479270 Metal Film 560 ohm 1/4W J C/H S60 ohm 1/4W J A/J R143L/R 3069561270 Metal Film 560 ohm 1/4W J A/J R143L/R 3069561270 Metal Film 680 ohm 1/4W J A/J R143L/R 3069681270 Metal Film 100 ohm 1/4W J C/I R221L/R 3069101270 Metal Film 100 ohm 1/4W J C/I R221L/R 3069101270 Metal Film 100 ohm 1/4W J C/I R221L/R 3069561270 Metal Film 100 ohm 1/4W J C/I R318 3069561270 Metal Film 560 ohm 1/4W J G R380 3069102270 Metal Film 560 ohm 1/4W J G R380 3069102270 Metal Film 560 ohm 1/4W J G R408L/R 306933270 Metal Film 33Kohm 1/4W J C/E R408L/R 306933270 Metal Film 33Kohm 1/4W J C/E R410L/R 3069104270 Metal Film 100 ohm 1/4W J C/E R411L/R 3069104270 Metal Film 100Kohm 1/4W J B/D R411L/R 3069104270 Metal Film 15Kohm 1/4W J B/D R411L/R 3069102270 Metal Film 15Kohm 1/4W J B/D R415L/R 3069102270 Metal Film 100Kohm 1/4W J B/D R415L/R 3069104270 Metal Film 100 ohm 1/4W J B/D R415L/R 3069104270 Metal Film 100 ohm 1/4W J B/D R415L/R 3069104270 Metal Film 100 ohm 1/4W J B/D R415L/R 3069104270 Metal Film 100 ohm 1/4W J B/D R415L/R 3069104270 Metal Film 100 ohm 1/4W J B/D R415L/R 3069104270 Metal Film 100 ohm 1/4W J B/D R416L/R 3069104270 Metal Film 100 ohm 1/4W J B/D R416L/R 3069104270 Metal Film 100 ohm 1/4W J B/D R416L/R 3069104270 Metal Film 100 ohm 1/4W J B/D R416L/R 3069104270 Metal Film 100 ohm 1/4W J B/D R416L/R 3069104270 Metal Film 100 ohm 1/4W J B/D R416L/R 3069104270 Metal Film 100 ohm 1/4W J B/D R416L/R 3069104270 Metal Film 100 ohm 1/4W J B/D R416L/R 3069104270 Metal Film 100 ohm 1/4W J B/D R416L/R 3069104270 Metal Film 100 ohm 1/4W J B/D R416L/R 3069104270 Metal Film 100 ohm 1/4W J B/D R416L/R 3069104270 Metal Film 100 ohm 1/4W J B/D R416L/R 3069104270 Metal Film 100 ohm 1/4W J B/D R416L/R 3069104270 Metal Film 100 ohm 1/4W J B/D R416L/R 3069104270 Metal Film 100 ohm 1/4W J B/D R416L/R 3069104270 Metal Film 100 ohm 1	R137L/R	3069101270	Metal Film 100 ohm 1/4W J	B/I	
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R141L/R 3069561270 Metal Film 560 ohm 1/4W J B/I R142 3069102270 Metal Film 1Kohm 1/4W J A/J R143L/R 3069273270 Metal Film 1Kohm 1/4W J A/J R147 3069681270 Metal Film 680 ohm 1/4W J C/I R221L/R 3069101270 Metal Film 100 ohm 1/4W J G R222L/R 3069101270 Metal Film 560 ohm 1/4W J G R318 3069561270 Metal Film 560 ohm 1/4W J G R318 3069561270 Metal Film 560 ohm 1/4W J G R380 3069102270 Metal Film 560 ohm 1/4W J G R407L/R 3069333270 Metal Film 33Kohm 1/4W J C/E R409L/R 3069153270 Metal Film 100kohm 1/4W J C/E R411L/R 3069153270 Metal Film 1Kohm 1/4W J B/D R411L/R 3069102270 Metal Film 1Kohm 1/4W J B/D R412L/R 3069102270 Metal Film <td>R139L/R</td> <td>3069479270</td> <td>Metal Film 4.7 ohm 1/4W J</td> <td>C/H</td> <td></td>	R139L/R	3069479270	Metal Film 4.7 ohm 1/4W J	C/H	
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R417L/R 3069101270 Metal Film 100 ohm 1/4W J B/D • Transistors Q101L/R 2008213109 NPN μPA 74HA B/I Q102L/R 2008613115 PNP μPA 75HA B/I Q103L/R 2208606108 NPN KTC 2240BL B/J Q104L/R 2008206104 PNP KTC 970BL B/J Q105L/R 2208606108 NPN KTC 2240BL B/I Q106L/R 2008206104 PNP KTC 970BL B/I Q107P/R 2208606108 NPN KTC 2240BL B/J Q108L/R 2008206104 PNP KTC 970BL B/J Q109L/R 2018206109 FET 2SK30A B/I Q110L/R 2018206109 FET 2SK30A B/I Q111L/R 2008206104 PNP KTA 970BL B/I Q112L/R 20208606108 NPN KTC 2240BL B/I Q113L/R 2028606108 NPN KTC 2240BL B/I Q113L/R 2028116106 PNP 2SA 958 C/H					
■ Transistors 0101L/R 2008213109 NPN µPA 74HA B/I 0102L/R 2008613115 PNP µPA 75HA B/I 0103L/R 2208606108 NPN KTC 2240BL B/J 0104L/R 2008206104 PNP KTC 970BL B/J 0105L/R 2208606108 NPN KTC 2240BL B/I 0106L/R 2008206104 PNP KTC 970BL B/I 0107L/R 2208606108 NPN KTC 2240BL B/J 0107L/R 2208606108 NPN KTC 2240BL B/J 0107L/R 2008206104 PNP KTC 970BL B/J 0109L/R 2018206109 FET 25K30A B/I 0110L/R 2018206109 FET 25K30A B/I 0111L/R 2008206104 PNP KTA 970BL B/I 0111L/R 2008206104 PNP KTA 970BL B/I 01112L/R 2208606108 NPN KTC 2240BL B/I 0113L/R 2008206104 PNP KTA 970BL B/I 0113L/R 2008206106 PNP 2SA 958 C/H					
Q101L/R 2008213109 NPN µPA 74HA B/I Q102L/R 2008613115 PNP µPA 75HA B/I Q103L/R 2008606108 NPN KTC 2240BL B/J Q104L/R 2008206104 PNP KTC 970BL B/J Q106L/R 2008206104 PNP KTC 2240BL B/I Q106L/R 2008206104 PNP KTC 970BL B/I Q107L/R 2208606108 NPN KTC 2240BL B/J Q107L/R 2208606108 NPN KTC 2240BL B/J Q107L/R 2008206104 PNP KTC 970BL B/J Q108L/R 2008206104 PNP KTC 970BL B/J Q109L/R 2018206109 FET 25K30A B/I Q110L/R 2018206109 FET 25K30A B/I Q111L/R 2008206104 PNP KTA 970BL B/J Q111L/R 2008206104 PNP KTA 970BL B/I Q111L/R 2008206108 NPN KTC 2240BL B/I Q113L/R 2008206108 NPN KTC 2240BL B/I Q113L/R 2008206109 FET 25K30A B/I Q113L/R 2008206100 PNP KTA 970BL B/I Q113L/R 2008206100 NPN KTC 2240BL B/I Q113L/R 2028116106 PNP 2SA 958 C/H	K41/L/K	3069101270	Metal Film 100 ohm 1/4W J	B/D	
Q102L/R 2008613115 PNP µPA 75HA B/I Q103L/R 2208606108 NPN KTC 2240BL B/J Q104L/R 2008206104 PNP KTC 970BL B/J Q105L/R 2208606108 NPN KTC 2240BL B/J Q106L/R 2008206104 PNP KTC 970BL B/I Q106L/R 2008206104 PNP KTC 970BL B/J Q107L/R 2208606108 NPN KTC 2240BL B/J Q108L/R 2008206104 PNP KTC 970BL B/J Q109L/R 2018206109 FET 25K30A B/I Q110L/R 2018206109 FET 25K30A B/I Q111L/R 2008206104 PNP KTA 970BL B/J Q111L/R 2008206104 PNP KTA 970BL B/I Q111L/R 2008206106 NPN KTC 2240BL B/I Q113L/R 2008206107 PNP KTA 970BL B/I Q113L/R 2008206108 NPN KTC 2240BL B/I Q113L/R 2028116106 PNP 2SA 958 C/H					
Q103L/R 2208606108 NPN KTC 2240BL B/J Q104L/R 2008206104 PNP KTC 970BL B/J Q105L/R 2208606108 NPN KTC 2240BL B/I Q106L/R 2008206104 PNP KTC 970BL B/I Q107L/R 2208606108 NPN KTC 2240BL B/J Q108L/R 2008206104 PNP KTC 970BL B/J Q109L/R 2018206109 FET 25K30A B/I Q110L/R 2018206109 FET 25K30A B/I Q111L/R 2008206104 PNP KTA 970BL B/I Q111L/R 2008206108 NPN KTC 2240BL B/I Q113L/R 2028116106 PNP 2SA 958 C/H	Q101L/R			B/I	
Q104L/R 2008206104 PNP KTC 970BL B/J Q105L/R 2208606108 NPN KTC 2240BL B/I Q106L/R 2008206104 PNP KTC 970BL B/I Q107L/R 2208606108 NPN KTC 2240BL B/J Q108L/R 2008206104 PNP KTC 970BL B/J Q109L/R 2018206109 FET 2SK30A B/I Q110L/R 2018206109 FET 2SK30A B/I Q111L/R 2008206104 PNP KTA 970BL B/I Q112L/R 2208606108 NPN KTC 2240BL B/I Q113L/R 2028116106 PNP 2SA 958 C/H	Q102L/R		•	B/I	
Q105L/R 2208606108 NPN KTC 2240BL B/ł Q106L/R 2008206104 PNP KTC 970BL B/l Q107L/R 2208606108 NPN KTC 2240BL B/J Q108L/R 2008206104 PNP KTC 970BL B/J Q109L/R 2018206109 FET 2SK30A B/l Q110L/R 2018206109 FET 2SK30A B/l Q111L/R 2008206104 PNP KTA 970BL B/l Q112L/R 2208606108 NPN KTC 2240BL B/l Q113L/R 2028116106 PNP 2SA 958 C/H	Q103L/R			B/J	
Q106L/R 2008206104 PNP KTC 970BL B/I Q107L/R 2208606108 NPN KTC 2240BL B/J Q108L/R 2008206104 PNP KTC 970BL B/J Q109L/R 2018206109 FET 2SK30A B/I Q110L/R 2018206109 FET 2SK30A B/I Q111L/R 2008206104 PNP KTA 970BL B/I Q112L/R 2008206108 NPN KTC 2240BL B/I Q113L/R 2028116106 PNP 2SA 958 C/H				B/J	
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Q108L/R 2008206104 PNP KTC 970BL B/J Q109L/R 2018206109 FET 2SK30A B/I Q110L/R 2018206109 FET 2SK30A B/I Q111L/R 2008206104 PNP KTA 970BL B/I Q112L/R 2208606108 NPN KTC 2240BL B/I Q113L/R 2028116106 PNP 2SA 958 C/H	Q106L/R				
Q109L/R 2018206109 FET 2SK30A B/I Q110L/R 2018206109 FET 2SK30A B/I Q111L/R 2008206104 PNP KTA 970BL B/I Q112L/R 2208606108 NPN KTC 2240BL B/I Q113L/R 2028116106 PNP 2SA 958 C/H					
Q110L/R 2018206109 FET 2SK30A B/I Q111L/R 2008206104 PNP KTA 970BL B/I Q112L/R 2208606108 NPN KTC 2240BL B/I Q113L/R 2028116106 PNP 2SA 958 C/H	Q108L/R				į
Q111L/R 2008206104 PNP KTA 970BL B/I Q112L/R 2208606108 NPN KTC 2240BL B/I Q113L/R 2028116106 PNP 2SA 958 C/H	Q109L/R			B/I	
Q112L/R 2208606108 NPN KTC 2240BL B/1 Q113L/R 2028116106 PNP 2SA 958 C/H	Q110L/R				
Q113L/R 2028116106 PNP 2SA 958 C/H					
					į
QT14L/R 2028416109 NPN 2SC2168 C/H	Q114L/R	2028416109	NPN 2SC2168	C/H	

POWER - A BOARD 4002118500

Ref. No	Parts No.	Description	Position	Remark
Capacitor C201	3409210991	Electrolytic 1μF/100V		
• Diode				
D201	2058106101	Rectifier 1N4003		
Resistors				
R203	3039681472	Metal Oxide 680 ohm 1W		
R205	3039681472	Metal Oxide 680 ohm 1W		
R207	3039681472	Metal Oxide 680 ohm 1W		
R209	3039681472	Metal Oxide 680 ohm 1W		
R211	3059278682	Cement 0.27 ohm 3W		
R213	3059278682	Cement 0.27 ohm 3W		
R215	3059278682	Cement 0.27 ohm 3W		
R216	3059278682	Cement 0.27 ohm 3W		
R223	3069100472	Metal Oxide 10 ohm 1W		
R225	3039100472	Metal Oxide 10 ohm 1W		
R227	3039100472	Metal Oxide 10 ohm 1W		
R229	3039100472	Metal Oxide 10 ohm 1W		
Transisto	rs			
0203	2028811101	MOS-FET 2SK1058		
0205	2028811101	MOS-FET 2SK1058		
Q207	2028811101	MOS-FET 2SK1058		
0209	2028811101	MOS-FET 2SK1058		

INPUT BOARD 4002118650

	DOAND	1002110000		
Ref. No	Parts No.	Description	Position	Remark
• Capacito	rs			
C101L/R	3579101130	Ceramic 100pF/50V		
C102L/R	3579101130	Ceramic 100pF/50V		
C103L/R	3579101130	Ceramic 100pF/50V		
C104L/R	3579101130	Ceramic 100pF/50V		
C105L/R	3579101130	Ceramic 330pF/50V		
C106L/R	3579101130	Ceramic 330pF/50V		
C107L/R	3479247041	Electrolytic 47μF/25V		
C108L/R	3479247041	Electrolytic 47μF/25V		
C151L/R	3479247971	Electrolytic 4.7μF/50V		
C152L/R	3479247971	Electrolytic 4.7μF/50V		
• IC				
IC10 L/R	2168020106	NJM 2068		
Resistors				
R101L/R	3069121270	Metal Film 120 ohm 1/4W J		
R102L/R	3069272270	Metal Film 2.7Kohm 1/4W J		
R103L/R	3069473270	Metal Film 47 Kohm 1/4W J		
R104L/R	3069101270	Metal Film 100 ohm 1/4W J		
R105L/R	3069101270	Metal Film 100 ohm 1/4W J		
R106L/R	3069121270	Metal Film 120 ohm 1/4W J		
R107L/R	3069272270	Metal Film 2.7Kohm 1/4W J		
R108L/R	3069473270	Metal Film 47 Kohm 1/4W J		
R161L/R	3069471270	Metal Film 470 ohm 1/4W J		
R162L/R	3069104270	Metal Film 100 Kohm 1/4W J		
R163L/R	3069471270	Metal Film 470 ohm 1/4W J		
R164L/R	3069104270	Metal Film 100 Kohm 1/4W J		

POWER - B BOARD 4002118510

Ref. No	Parts No.	Description	Position	Remark
• Capacitor C202	3409210991	Electrolytic 1μF/100V		
• Diode				
D202	2058106101	Rectifier 1N4003		
• Resistors				
R204	3039221472	Metal Oxide 220 ohm 1W		
R206	3039221472	Metal Oxide 220 ohm 1W		
R208	3039221472	Metal Oxide 220 ohm 1W		
R210	3039221472	Metal Oxide 220 ohm 1W		
R212	3059278682	Cement 0.27 ohm 3W		
R214	3059278682	Cement 0.27 ohm 3W		
R216	3059278682	Cement 0.27 ohm 3W		
R218	3059278682	Cement 0.27 ohm 3W		
R224	3069100472	Metal Oxide 10 ohm 1W		
R226	3039100472	Metal Oxide 10 ohm 1W		
R228	3039100472	Metal Oxide 10 ohm 1W		
R230	3039100472	Metal Oxide 10 ohm 1W		
• Transisto	rs			
0204	2028611101	MOS-FET 2SJ162		
Q206	2028611101	MOS-FET 2SJ162		
0208	2028611101	MOS-FET 2SJ162		
0210	2028611101	MOS-FET 2SJ162		

FUSE BOARD 4002118660

	Ref. No	Parts No.	Description	Position	Remark
	Capacitor				
Δ	C512	3549472407	Ceramic D.0047µF 400V AC		
Δ	C512	3509103450	Ceramic : 0.0047µF 400V. AC		D
	• Diode				
Δ	Distrute 1	2058113131	Rectifier, MB254	100	200
	• Fuse				
△	7506L/R	5508113230	SB 4A 250V AC, 31,8mm		B, KS
	• Power Tra	insformers			
		2828060111	L-CH		Α
	ŀ	2828060101	R-CH		Α
		2828060217	L-CH		C, F
	İ	2828060207	R-CH		C, F
		2828065017	L-CH		D
		2828065007	R-CH		D
		2828060411	L-CH		KS
	ĺ	2828060401	R-CH		KS
	l	2828060317	L-CH		E
		2828060307	R-CH		E
	:	4678600110	Reseting Thermal Protector T135 A	RIUI	Thermal Protector

SPEAKER- A BOARD 4002118600

Ref. No	Parts No.	Description	Position	Remark
Capacitor	s		• • •	
C301L/R	3409247871	Electrolytic 0.047µF 50V		
C302	3409247971	Electrolytic 4.7µF 50V		
C303	3408247111	Electrolytic 470µF 6.3V		
C304	3409210131	Electrolytic 100μF 16V		
C309L/R	3609223180	Metallized Polv 0.022µF 630V		
		0102241 0007		
• Diodes	0050000404	4114440		
D301L/R	2058306101	1N4148		
D302L/R	2058306101	1N4148		
D303	2058106101	1N4003, Rectifier		
D304	2058599116	DZ-12BM, Zener		
D305	2058106101	1N4003, Rectifier		
D306	2058106101	1N4003, Rectifier		
RLY1	5528001470	HL2-HP-DC24V, Relay		
RLY2	5528001470	HL2-HP-DC24V, Relay		
L301L/R	2468001010	0.5μH, Inductor		
L302L/R	2468001010	0.5μH, Inductor		
• Dogistara				
• Resistors R301L/R	3069332270	Metal Film 3.3Kohm 1/4W J		
R302L/R	3069273270	Metal Film 27Kohm 1/4W J		
R303	3069102270	Metal Film 1Kohm 1/4W J		
R304	3069474270	Metal Film 470Kohm 1/4W J		
R306	3069103270	Metal Film 10Kohm 1/4W J		
R307	3069273270	Metal Film 27Kohm 1/4W J		
R308	3069101270	Metal Film 100ohm 1/4W J		
R309	3069104270	Metal Film 100Kohm 1/4W J		
R310	3069333270	Metal Film 33Kohm 1/4W J		
R311	3069103270	Metal Film 10Kohm 1/4W J		
R312	3069103270	Metal Film 10Kohm 1/4W J		
R313	3069333270	Metal Film 33Kohm 1/4W J		
R314	3069681270	Metal Film 680ohm 1/4W J		
R315L/R	3069183270	Metal Film 18Kohm 1/4W J		
R316	3069561270	Metal Film 560ohm 1/4W J		
R319	3039339472	Metal Oxide 3.3ohm 1W		
R320	3039339472	Metal Oxide 3.3ohm 1W		
R321L/R	3039339472	Metal Oxide 3.3ohm 1W		
R322L/R	3039339472	Metal Oxide 3.3ohm 1W		
R327L/R	3039220572	Cement 22ohm 2W		
R328L/R	3039220572	Cement 22ohm 2W		
R371	3069473270	Metal Film 47ohm 1/4W J		
R374	3039222472	Metal Oxide 2.2kohm 1W J		
R381	3069103270	Metal Film 10Kohm 1/4W J		
Transistor		MUCA OC		
Q301L/R	2008609102	MPSA 06		
0302	2008209101	MPSA 55		
Q303	2008609102	MPSA 06		
Q304	2008609102	MPSA 06		
Q305	2008609102	MPSA 06		
Q306	2008609102	MPSA 06		
Q307	2008609102	MPSA 06		
Q308	2008609102	MPSA 06		
Q309	2008609102	MPSA 06		
Q310	2008609102	MPSA 06		

MAIN SUPPLY-A BOARD 4002118620

Ref. No	Parts No.	D	escription	Position	Remark		
• Capacitors							
C501L/R	3419582210	Electrolytic	8200μF	80V			
C502L/R	3419582210	Electrolytic	8200µF	80V			
C503L/R	3419582210	Electrolytic	8200μF	80V			
C504L/R	3419582210	Electrolytic	8200μF	80V			

18V REGULATOR BOARD 4002118640

	Ref. No	Parts No.	Description	Position	Remark	
	Capacitor	s				
	C505	3409247161	Electrolytic 470μF/35V			
	C506	3409247161	Electrolytic 470µF/35V			
	C511	3409247041	Electrolytic 47μF/35V			
	• Diodes					
△	D502	2058106101	Rectifier 1N4003			
△	D503	2058106101	Rectifier 1N4003			
\triangle	D504	2058106101	Rectifier 1N4003			
△	D505	2058106101	Rectifier 1N4003			
△	D506	2058106101	Rectifier 1N4003			
△	D507	2058106101	Rectifier 1N4003			
	• Fuses					
△	F501L/R	5508113336	SB 7A 250V AC, 31.8mm	Rear Panel	A.B	
△	F501L/R	5508302934	TL 4A 250V AC 20mm		C, D, E, F	
△	F502L/R	5508113431	SB 10A 250V AC, 31.8mm		A, B, C, D	
					E, F	
Δ	F503L/R	5508113431	SB 10A 250V AC, 31.8mm	Rear Panel	A, B, C, D	
					E, F	
△	F504	5508211631	NBO 54A 250V AC, 31.8mm		A, B, KS	
△	F504	5508301634	TL 500mV 250V AC, 20mm		C, D, E, F	
△	F505	5508211631	NB 0.5A 250V AC, 31.8mm		A, B, KS	
△	F505		TL 500mV 250V AC, 20mm		C, D, E, F	
	● Resistors					
- 1	R501	3039339472	Metal Oxide 3.3 ohm(1W)			
	R502		Metal Oxide 3.3 ohm(1W)			
İ	R503		Metal oxide 2.2 ohm			

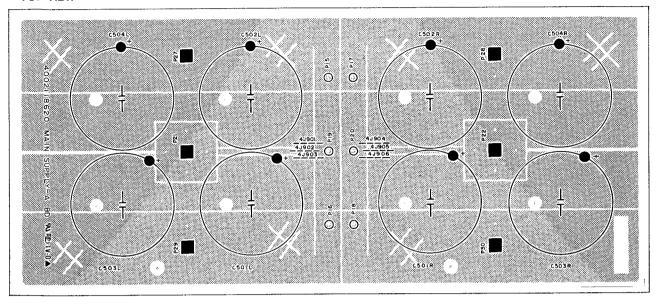
SPEAKER-B BOARD 4002118610

		· · · · · · · · · · · · · · · · · · ·		
Ref. No	Parts No.	Description	Position	Remark
 Capacitor 	S			
C305L/R	3609223180	Metallized Poly 0.022µF/630V		
C306L/R	3609223180	Metallized Poly 0.022μF/630V		
Resistors	i			
R323L/R	3039220472	Metal Oxide 22ohm 2W J		
R324L/R	3039220472	Metal Oxide 22ohm 2W J		
R325L/R	3039220472	Metal Oxide 22ohm 2W J		
R326L/R	3039220472	Metal Oxide 22ohm 2W J		

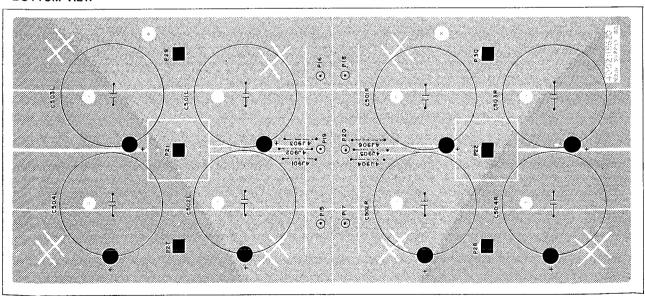
Top & Bottom View of P.C Boards

MAIN SUPPLY-A BOARD 4002118620

- TOP VIEW

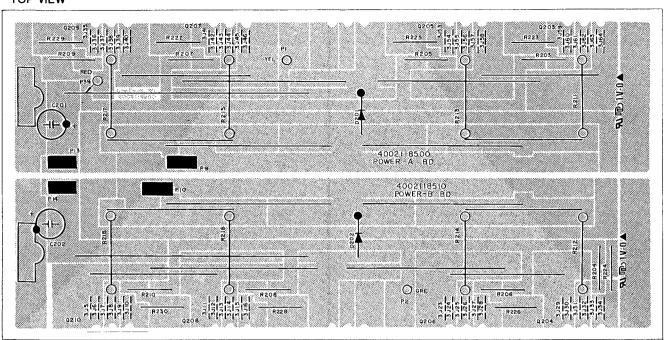


- BOTTOM VIEW

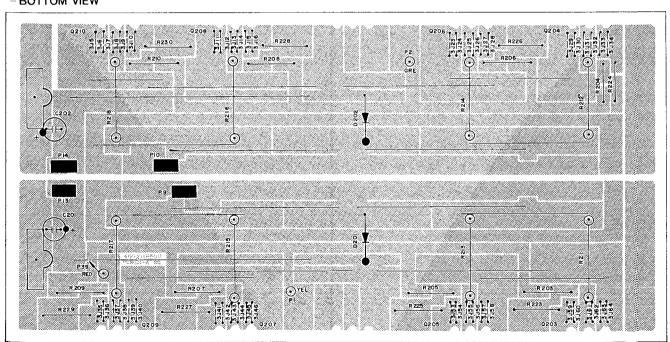


POWER-A BOARD 4002118500, POWER-B BOARD 4002118510

- TOP VIEW

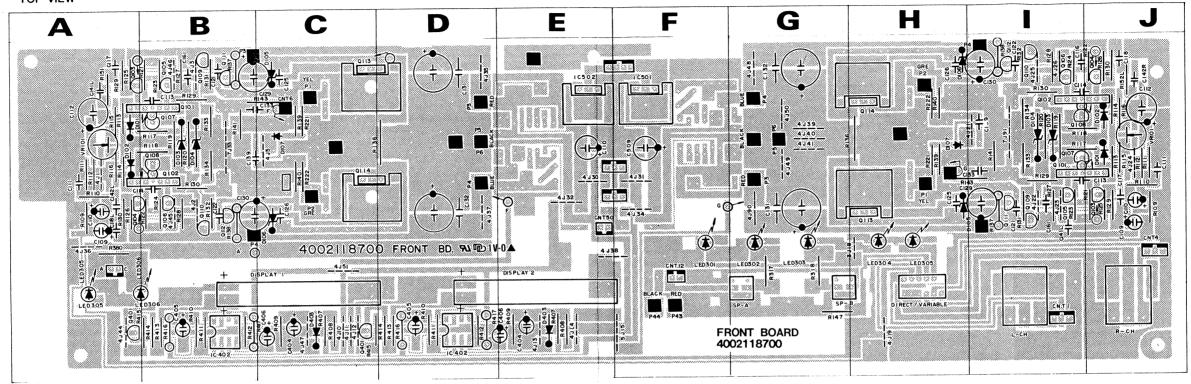


BOTTOM VIEW

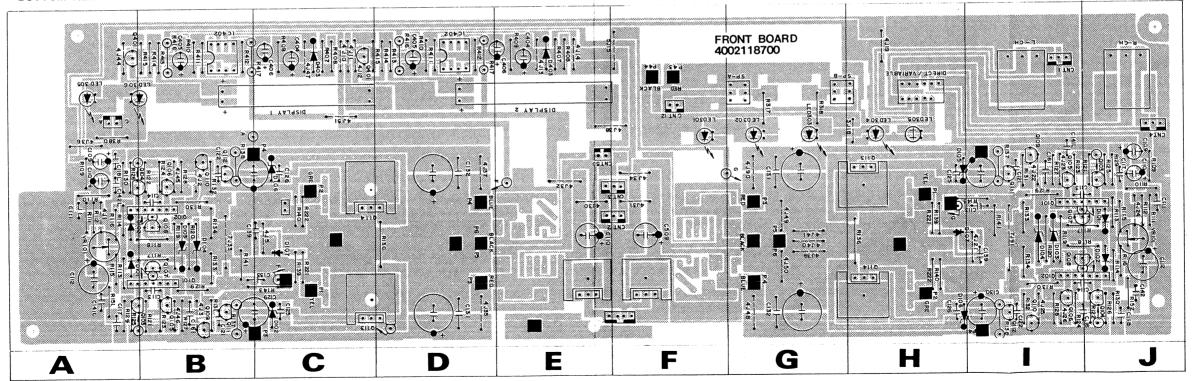


FRONT BOARD 4002118700

-TOP VIEW

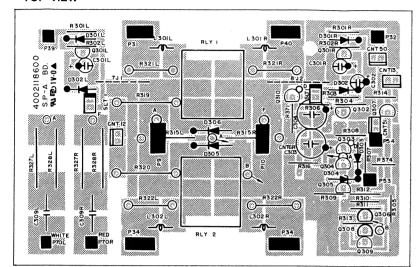




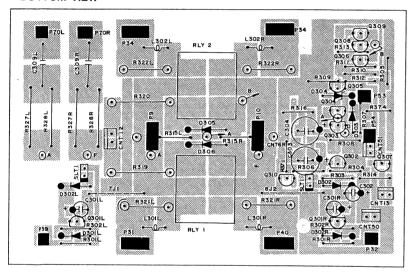


SP-A BOARD 4002118600

- TOP VIEW

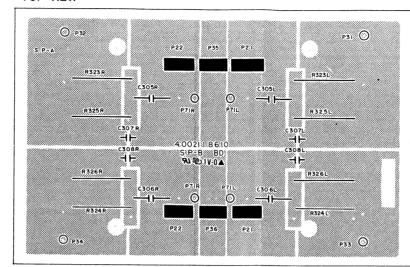


-BOTTOM VIEW

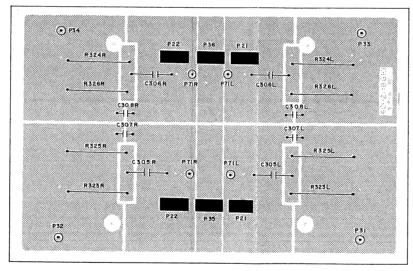


SP-B BOARD 4002118610

-TOP VIEW

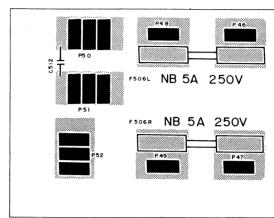


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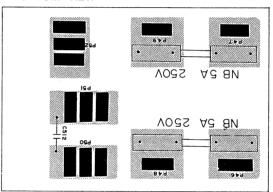


FUSE BOARD 4002118660

-TOP VIEW

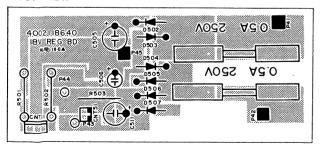


-BOTTOM VIEW

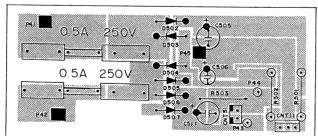


18V REG BOARD 4002118640

- TOP VIEW

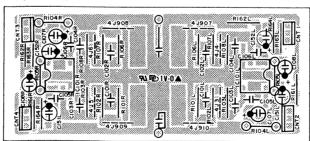


- BOTTOM VIEW

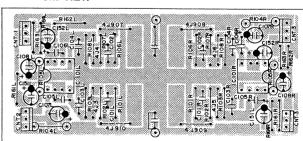


INPUT BOARD 4002118650

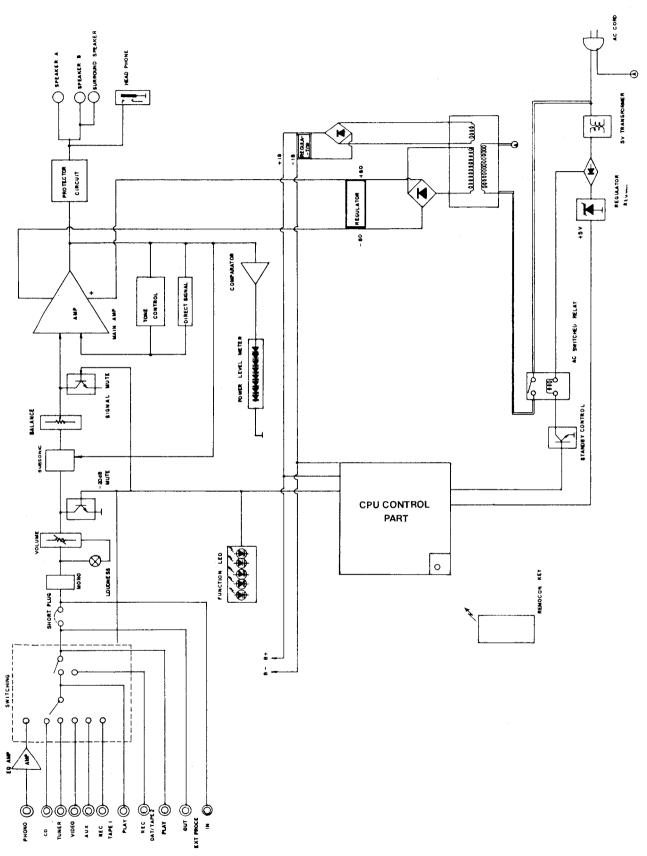
-TOP VIEW



- BOTTOM VIEW



Block Diagram

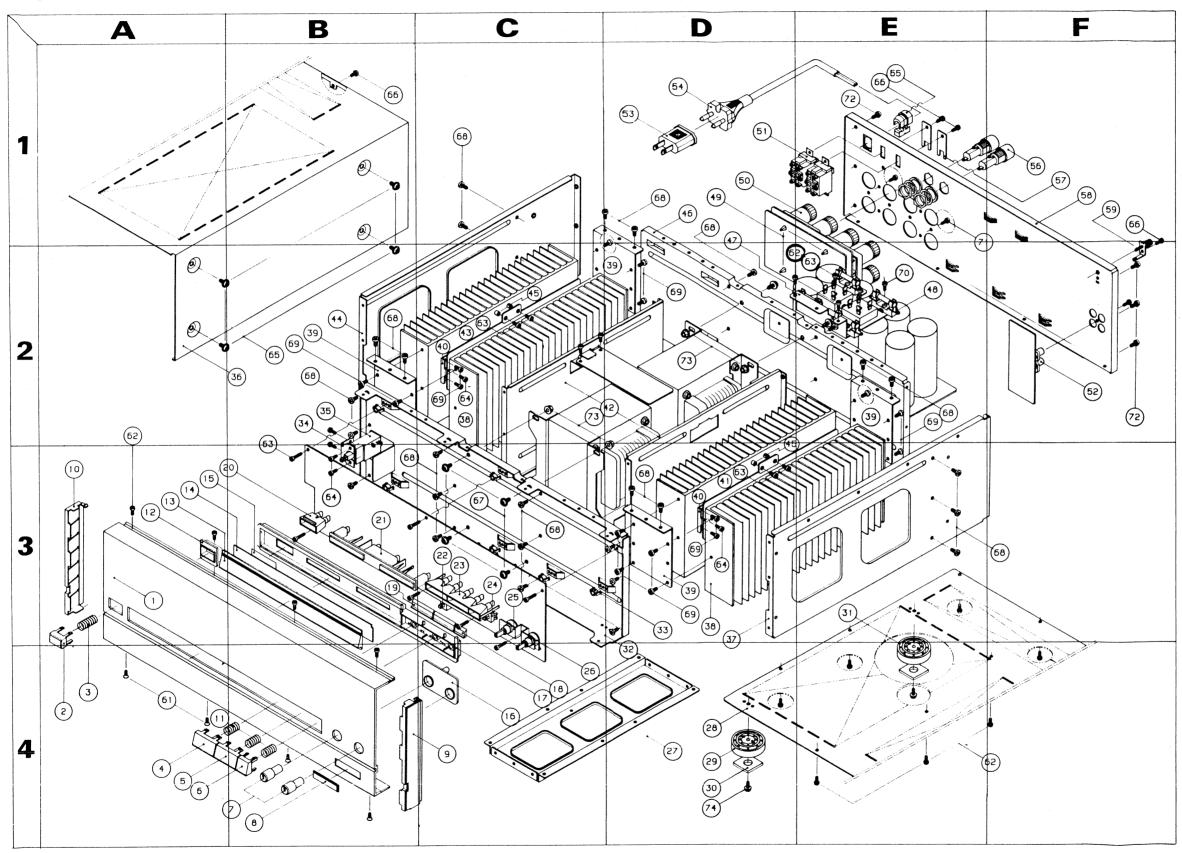


Mechanical Parts List

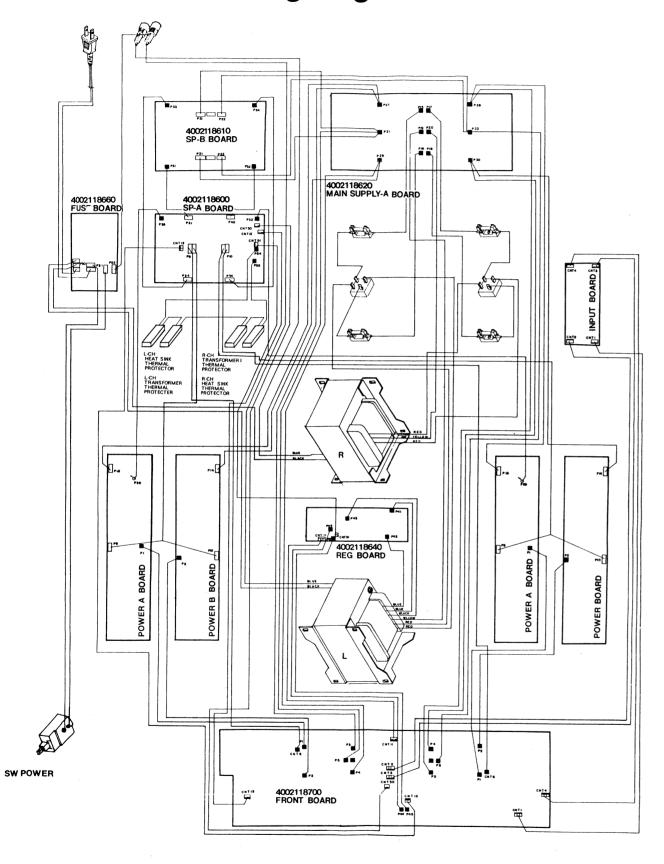
No.	Parts No.	Description	Q'ty	Position	Remark
1	048602016212	Panel-Front, Black	1	A3	
2	048545048212	Button-Push, Power	1	A4	
3	6556010020	Spring, Power	1	A4	
4 5	048545052611 048545052612	Button-Push, Speaker A Button-Push, Speaker B	1 1	A4 A4	
6	048545052811	Button-Push, C	1	A4 A4	
7	048643004011	Knob, Volume L,R	2	B4	
8	048535019012	Badge	1	B4	
9	048583002011	End-Cap, Right	1	C4	
10	048583002021	End-Cap, Left	1	A3	
11	6555003620	Spring, Speaker	3	A4	
12	8525006710	Bezel Button	1	A3	
13	8553008510 048533005611	Display-Window, Smoke Display-Plate	1 1	A3 A3	
15	8535021410	Display-Flate Diffuser	1	A3	
16	8523009810	Bezel Volume	1	C4	
17	6042001510	Display-Holder	1	C4	
18	8555022110	Indicator B	1	C4	
19	8555022010	Indicator A	2	83	
20	6045006810	Holder-LED A	1	A3	
21	6043006010	Holder-LED B	1	B3	
22 23	4628038810 6043006110	Switch-Push Speaker A,B Holder-LED C	2	C3	
24	4628042010	Switch-Push (4/2)	1 1	C3	
25	4020042010	Not used!	'	CS	
26	3208053110	Volume Rotary	2	C4	
27	6123619410	Frame Under	1	D4	
28	6122413110	Cover Bottom	1	D4	
29	046035101421	Foot-Base, Hot Stamping	2	D4	
30	6725002110	Cushion-Rubber, Black	4	D4	
31	6035101420	Foot-Base	2	E3	
32	6122615110 6705004210	Frame Front Spacer, Black	1 8	D4 D3	
34	6505085010	Bracket Switch	1	B2	
35	4628052610	Switch-Push, Power	i	B2	A,B
"	4628052710	Switch-Push, Power	1	B2	C,D,E,F
36	046122017011	Cover-Top, Black	1	B2	
37	6122615310	Frame, Side Right	1	D3	
38	7503010110	Heatsink Power, Right	2	C2, D3	
39	6505084910 6505070710	Bracket Heatsink Bracket PCB	4 8	B2, D2 E2	
41	7503010010	Heatsink Power, Left	1	C2, D3 D3	
42	6123406210	Heat Hinder	2	D2	
43	7503010410	Heatsink Power L1	1	C2	
44	6122615320	Frame Side Left	1	B2	
45	7015003110	Bussing	4	C2, D3	
46	6122615210	Frame Back	1	D1	
47	6503012710 4458400310	Bracket Fuse	1	D1	
48	6528300120	Holder Fuse Fastner	4 4	E2 D1	
50	4408103610	Speaker Terminal, 4P×2	2	D1	
51	4618004010	Switch Slide	2	D1	В
52	4438102010	RCA-Jack	1	F2	
53		Not used !			
54	4308002410	Cord-AC, Power, Black	1	D1	A, B
]	4308002310	Cord-AC, Power, Black	1	D1	C,D,E,F
EF	4308000610	Cord-AC, Power, Black	1 1	D1	E .
55	6518000710 6518000111	Cord-Stopper, Black Cord-Stopper, Black	1	E1 E1	A, B C, D, F
	6513000210	Cord-Stopper, Black	1	E1	E, D, F
56	4458000210	Holder Fuse	2	F1	A, B
آ ا	4458000110	Holder Fuse	2	F1	C,D,E,F
57	6515007010 -	Holder Voltage	2	F1	В
58		Chassis Back, Black	1	F1	A
l	046102023631	Chassis Back, Black	1	F1	В
	046102023641	Chassis Back, Black	1	F1	C
	046102023651	Chassis Back, Black	1 1	F1 F1	D E
		Chagoir Rook Black		F 1	
	046102023661	Chassis Back, Black			
59	046102023661 046102023671	Chassis Back, Black	1	F1 F1	F
59 60	046102023661	· ·	1	F1	
	046102023661 046102023671	Chassis Back, Black System-Ground	1	F1	

No.	Parts No.	Description	Q'ty	Position	Remark
63	8109230141	Screw, #2 BTC 3×14ZNY	9	B2, C2, E2	1
64	8109330061	Screw, #3 BTC 3×6ZNY	6	C2, B3	
65	8159440083	Screw, WSAM 4×8ZNB	8	B2	
66	8109330083	Screw, #3 BTC 3×8ZNB	7	B1,F1	
67	8159440081	Screw, WSAM 4×8ZNY	12	C3	
68	8109535081	Screw, #3 BT 3.5×8ZNY	38	C1, B2	
				E2, B3	
69	8109235081	Screw, #2 BT 3.5×8ZNY	32	B2, C2	
				D2, E2	
70	8119330081	Screw, #3 PTC 3×8ZNY	4	E2	
71	8109230083	Screw, #2 BTC 3×8ZNB	9	E2	
72	8109535083	Screw, #3 BT 3.5×8ZNB	6	E1,F2	
73	8209540011	Nut Flunge 0.4ZNY	8	C2, D2	
74	8159330101	Screw, #3 WPTC 3×10ZNY	4	D4	

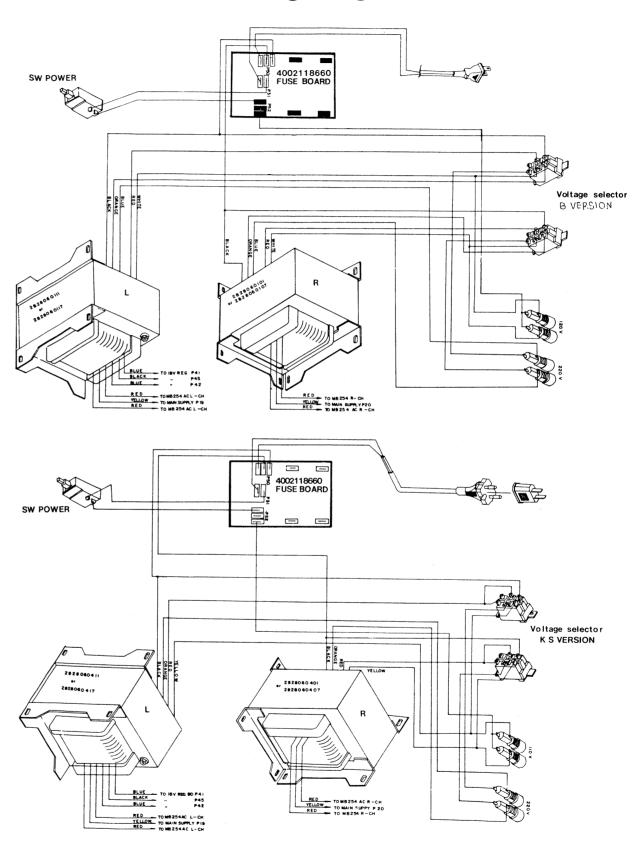
Exploded View of Cabinet & Chassis

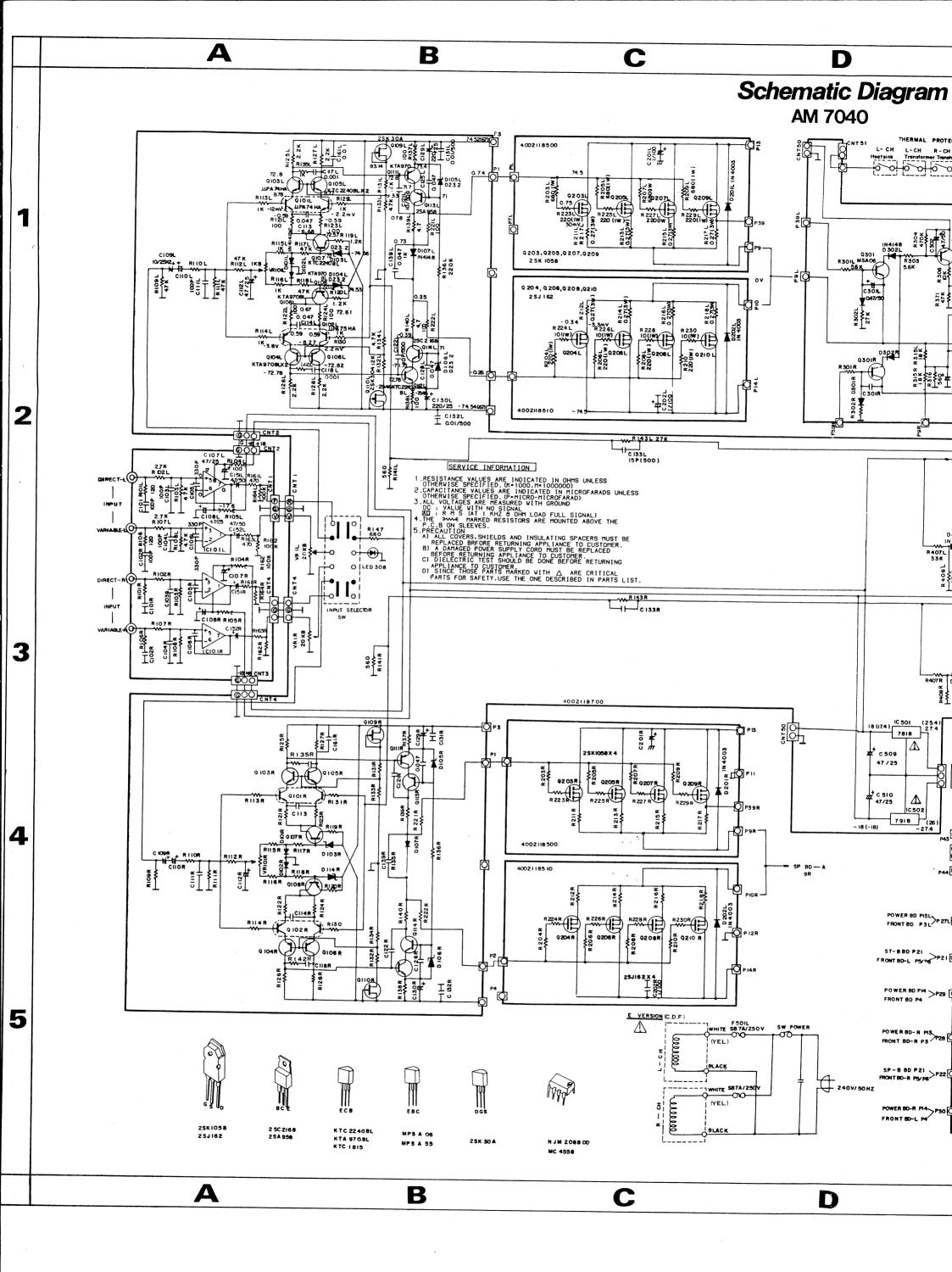


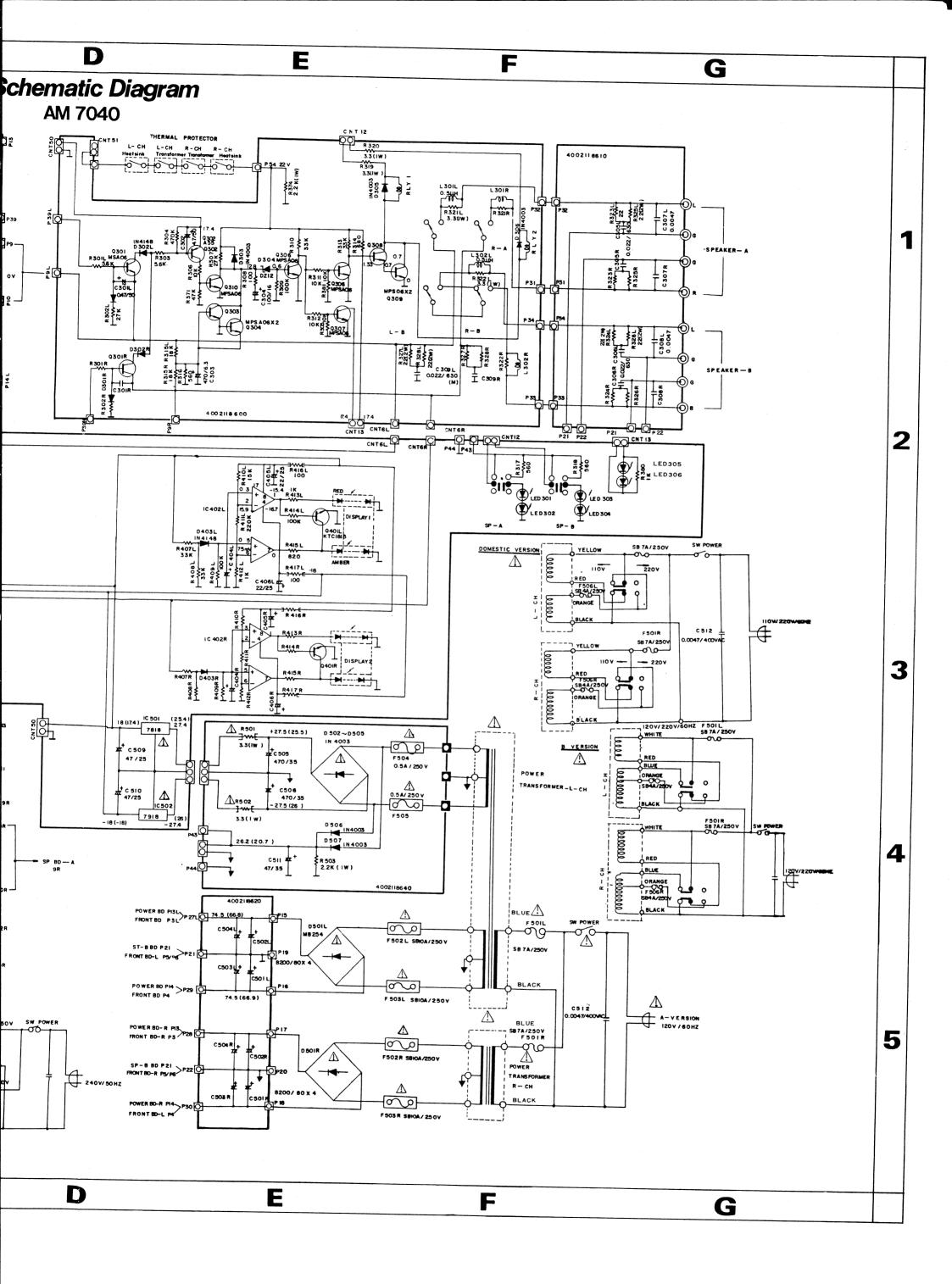
Point to Point Wiring Diagram(I)



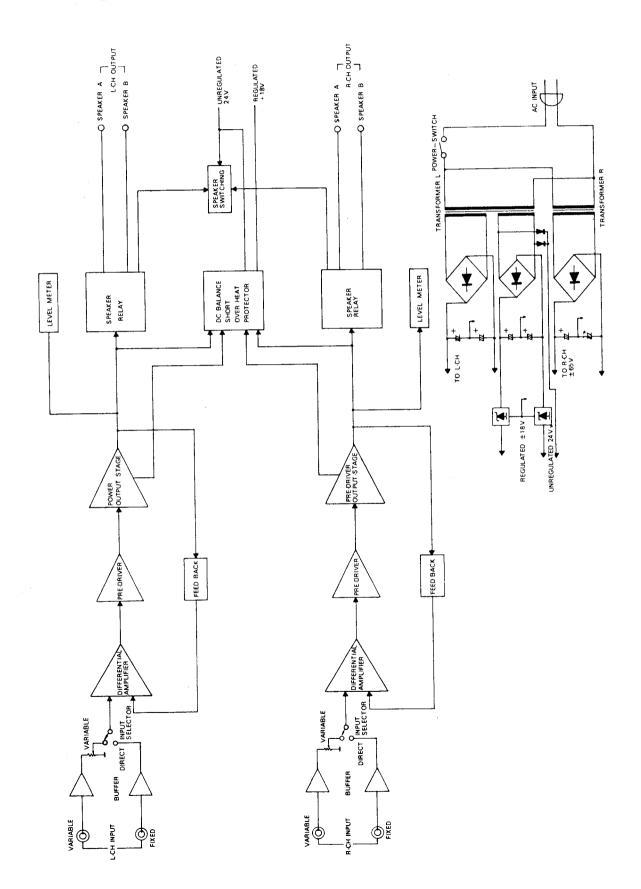
Point to Point Wiring Diagram(II)







Block Diagram (AM-7040 ONLY)



Point to Point Wiring Diagram (III)

